

Claim Amendments

Claims 1-4 (previously canceled)

Claims 5-14 (canceled)

15. (Currently amended) A method of manufacturing a magnetic head device, comprising:

forming a thin film magnetic head element over a substrate, the thin film magnetic head element including a magnetoresistance (MR) element;

cutting the substrate, the MR element being exposed on a side surface of the substrate ~~substrate~~;

polishing the side surface; and

removing a magnetically degenerated layer from at least a region of the side surface that includes a component part of the thin film magnetic head element.

16. (Currently amended) The method of claim 15 wherein removing the magnetically degenerated layer comprises etching the at least said region.

17. (Currently amended) The method of claim 15 wherein removing the magnetically degenerated layer comprises milling the at least said region.

18. (Previously presented) The method of claim 15 wherein forming the thin film magnetic head element comprises:

forming a first shield layer over the substrate;

forming a first half gap layer over the first shield layer;

forming the MR element over the first half gap layer;

forming a second half gap layer over the MR element; and

forming a second shield layer over the second half gap layer.

19. (Previously presented) The method of claim 18 wherein the MR element is formed with a stripe height equal to a target stripe height plus a depth of the magnetically degenerated layer.

20. (Previously presented) The method of claim 19 wherein removing the magnetically degenerated layer comprises etching the magnetically degenerated layer until the stripe height of the MR element is equal to the target stripe height.

21. (Previously presented) The method of claim 15 further comprising:
coating the side surface with a diamond-like carbon material after removing the magnetically degenerated layer.

22. (Previously presented) The method of claim 18 further comprising:
forming an inductive head element over the substrate, the inductive head element including upper and lower magnetic pole layers separated by a gap layer.

23. (Previously presented) The method of claim 22 wherein the lower magnetic pole layer is common with the second shield layer.

24. (Currently amended) The magnetic head device of claim 15 further comprising ~~machining the substrate to form~~ forming air-bearing surface rail parts in the side surface of the substrate.

25. (Previously presented) The method of claim 22 wherein the gap layer comprises a material consisting essentially of silicon oxide, tantalum pentoxide, or a beryllium-copper alloy.

26. (Previously presented) The method of claim 15 wherein the magnetically degenerated layer is approximately 1000 angstroms thick.

27. (Currently amended) The method of claim 22 wherein the gap layer and the first and second half gap layers comprise a ~~non-alumina-based~~ nonmagnetic material other than alumina.

28. (Currently amended) The method of claim 27 wherein the first shield layer and the upper and lower magnetic pole layers comprise a magnetic material having an etch rate that is substantially the same as an etch rate of the ~~non-alumina-based~~ nonmagnetic material.

29. (Previously presented) The method of claim 15 further comprising forming a nonmagnetic undercoat layer on the substrate.

Claims 30-36 (canceled)